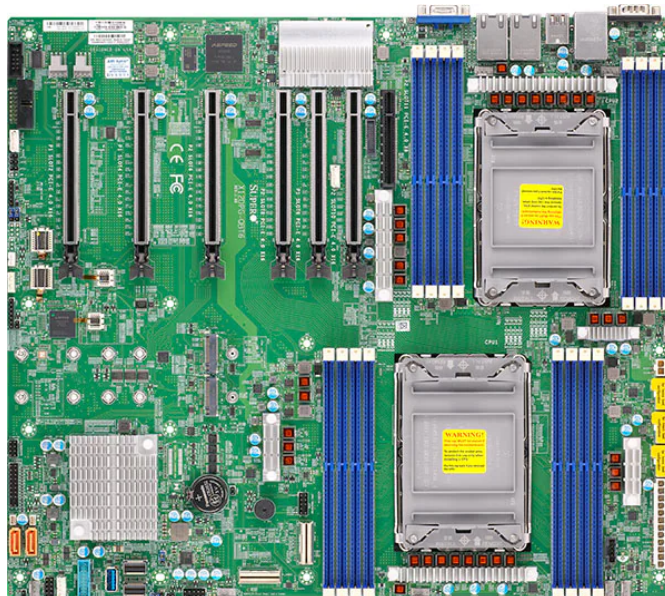# X12DPG-QBT6



**GPU Serverboard**

## Key Features

3rd Gen Intel® Xeon® Scalable processors, Dual Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP, 3 UPI up to 11.2 GT/s

Intel® C621A

Intel® Node Manager, IPMI2.0, KVM with dedicated LAN, NMI, SPM, SSM, SUM, SuperDoctor® 5, Watchdog

Up to 4TB 3DS ECC RDIMM, DDR4-3200MHz; Up to 4TB 3DS ECC LRDIMM, DDR4-3200MHz

Up to 6TB Intel® Optane™ Persistent Memory 200 Series, in 16 DIMM slots;

Up to 6TB Intel® Optane™ DC Persistent Memory in memory mode.

6 PCIe 4.0 x16,

1 PCIe 4.0 x8

**M.2 Interface:** 2 PCIe 4.0 x4, RAID 0 & 1

**M.2 Form Factor:** 2242/2260/2280/22110

**M.2 Key:** M-Key

Dual LAN with Broadcom BCM57416 10GBase-T

Integrated IPMI 2.0 and KVM with Dedicated LAN

5 USB 3.0 ports, 4 USB 2.0 ports

HD Audio with optical S/PDIF

## Optimized Servers

SYS-740GP-TNRBT

# Specifications

**Product SKUs**
**MBD-X12DPG-QBT6**

**Physical Stats**
**Form Factor**
Proprietary
**Dimension**
15.12" x 13.2" (38.43cm x 33.53cm)

**Processor**
**CPU**
3rd Gen Intel® Xeon® Scalable processors
Dual Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP, 3 UPI up to 11.2 GT/s
**Core**
Up to 40 cores

**System Memory**
**Memory Capacity**
16 DIMM slots
Up to 4TB 3DS ECC LRDIMM, DDR4-3200MHz; Up to 4TB 3DS ECC RDIMM, DDR4-3200MHz
Up to 6TB Intel® Optane™ DC Persistent Memory in memory mode.
**Memory Type**
3200/2933/2666 MT/s ECC DDR4 LRDIMM (3DS), RDIMM (3DS)
**DIMM Sizes**
16GB, 32GB, 64GB, 128GB, 256GB
LRDIMM: 128GB, 256GB
RDIMM: 64GB, 128GB
**Memory Voltage**
1.2V
**Error Detection**
Corrects single-bit errors
Detects double-bit errors (using ECC memory)

**On-Board Devices**
**Chipset**
Intel® C621A
**SATA**
Intel® C621A controller for 10 SATA3 (6 Gbps) ports; RAID 0,1,5,10
**IPMI**
ASPEED AST2600 BMC
**Audio**
7.1 HD Audio Header
**Graphics**
1 ASPEED AST2600 BMC port(s)
**Network Controllers**
Dual LAN with Broadcom BCM57416 10GBase-T

**Input / Output**
**SATA**
10 SATA3 (6Gbps) port(s)
**USB**
10 USB 3.1 Gen1 port(s) (1 via header; 1 type A; 3 rear type A; 1 rear type C; 4 rear)
2 USB 2.0 port(s) (2 via header)
**Video Output**
1 VGA D-Sub Connector port(s)
**Serial Port**
2 COM Port(s) (1 header; 1 rear)
**DOM**
2 SuperDOM (Disk on Module) port with build power
**TPM**
1 TPM Header

**Expansion Slots**
**PCIe**
1 PCIe 4.0 x8,
6 PCIe 4.0 x16
**M.2**
M.2 Interface: 2 PCIe 4.0 x4, RAID 0 & 1
Form Factor: 2242/2260/2280/22110
Key: M-Key

**System BIOS**
**BIOS Type**
AMI UEFI
**BIOS Features**
Plug and Play (PnP)
ACPI 1.0 / 2.0 / 3.0 / 4.0
USB Keyboard support
SMBIOS 2.7.1
UEFI 2.3.1

**Management**
**Software**
Redfish API, Supermicro Server Manager (SSM), Supermicro Power Manager (SPM), Supermicro Update Manager (SUM), SuperDoctor® 5, Super Diagnostics Offline , KVM with dedicated LAN , IPMI 2.0
**Power Configurations**
ACPI Power Management

**Security**
**Hardware**
Trusted Platform Module (TPM) 2.0

**PC Health Monitoring**
**Voltage**
VBAT, Supports system management utility, HT, Chassis intrusion header, +5V standby, +5V, +3.3V, +12V, +1.8V, 5+1 Phase-switching voltage regulator, 10 -fan status
**LED**
UID/Remote UID
Suspend static indicator LED
CPU / System Overheat LED
**FAN**
10x 4-pin fan headers (up to 10 fans)
Status monitoring for speed control
Pulse Width Modulated (PWM) fan connectors
**Other Features**
RoHS
Node Manager Support
CPU thermal trip support for processor protection
Chassis intrusion detection

**Operating Environment**
**Operating Temperature Range**
10°C - 35°C (50°F - 95°F)
**Non-Operating Temperature Range**
-40°C - 70°C (-40°F - 158°F)
**Operating Relative Humidity Range**
8% - 90% (non-condensing)
**Non Operating Relative Humidity Range**
5% - 95% (non-condensing)

# Parts List

## Standard Parts (Bulk Package)

### CPU carrier

| | |
|---|---|
| Part Number | SKT-1205L-P4IC-FXC |
| Qty | 2 |
| Description | CPU carrier for 3rd Gen Intel Xeon Scalable Processors |

### I/O Shield

| | |
|---|---|
| Part Number | MCP-260-00150-0N |
| Qty | 1 |
| Description | X12DPG-QT6 I/O SHIELD |

### SATA Cables

| | |
|---|---|
| Part Number | CBL-0044L • *e*Store |
| Qty | 2 |
| Description | 57.5 cm SATA FLAT S-S PBF |